

Curriculum Vitae of Andrey Kovalev

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EDUCATION

nov'1999 PhD in Electronic Engineering

1995-
1999 Postgraduate department of Moscow
Institute of Electronic Engineering
[Certificate](#)

YEAR OF BIRTH: 1972

RESIDENCE:

jan'1995 Degree (BS) of engineer in Computing
Systems and Networks (excellence degree)
[Certificate](#)

Waldsiedlung 26a,
82054 by München,
GERMANY

1989-
1995 Moscow Institute of Electronic Engineering

CONTACT INFO:

dec'1994 Advanced Certificate of English language
Interpreter
[Certificate](#)

Phone: +49 163 3451248
E-Mail: akovalev@servak.de

1992-
1995 Foreign language department of Moscow
Institute of Electronic Engineering

ACADEMIC DEGREES

PhD in Electronic Engineering

Thesis

"Microprocessor methods of temperature measurement based on thermo-resistive sensing".

CERTIFICATION

Advanced Certificate of English-Russian language Interpreter

TRAININGS

10-11.10.2005	Linux/MIPS Training
22.09.2006	Lauterbach TRACE32 Training for MIPS24k
18-23.06.2007	Java Application Workshop
21.04.2010	Intercultural Training: Japan
12-14.01.2011	AUTOSAR OS Training
07.03.2013	Innovation what it is and what it takes - Freescale
15.05.2013	Lauterbach ARM® Expert Day
9.07.2013	An Open Source RTOS for the Automotive Market
23.09.2013	Lauterbach Automotive Forum
18.05.2016	Basic Crypto & Security Training – NXP
23.10.2016	DOORS tools training (2nd session for part 1)
29-31.05.2017	Software Exploitation training – Riscure
01.06.2017	Business Creation and Management Process Training
08-09.03.2018	UML Training for Embedded Engineers. Sparx Systems
30.07.2018	DFMEA NXP Design School Training

WORK EXPERIENCE:

Present **Automotive Software Architect at [NXP](#)**



1. Definition of embedded security software subsystem, for a hardware security engine.
2. Requirements management, use case modeling.
3. Process assessment along ISO 21434.
4. UML Design and visual requirements traceability methodology.
5. SW Design FMEA.
6. Architecture Vulnerability Analysis.
7. Definition of Tooling for security hardware enablement.
8. Member of Trust Provisioning Core Team.

Aug
2008 -
2016

Automotive Software Architect at [Freescale](#), leading embedded semiconductor solutions company for cars, mobile phones, networks and more.



1. System on Chip (SoC) software concept development.
2. Hardware-software verification of the 32 bit SoC core.
3. ISO 15504 SPICE (Software Process Improvement and Capability dEtermination) standard.
4. Architecture and design strategy following the [Automotive Open Systems Architecture](#)
5. Manager AUTOSAR OS development team.
6. Manager AUTOSAR MCAL stack for Powertrain applications.
7. Automotive LIN 2.1 driver development project.

Mar
2007 -
Jul
2008

IP Factory Engineer at [Micronas](#), market leader in innovative global TV system solutions



1. System on Chip software memory interface software development
2. Memory partitioning for MIPS 32 bit architecture, driver development, and application support.
3. Posix driver development for OS Nucleus and Linux.
4. Customer technical support: Loewe, Grundig/Sharp, Samsung.

Mar
2005 -
Mar
2007

Software Factory Engineer at [Micronas](#), market leader in innovative global TV system solutions



1. System on Chip software memory interface software development
2. Memory partitioning for MIPS 32 bit architecture, driver development, and application support.
3. Posix driver development for OS Nucleus and Linux.
4. Customer technical support: Loewe, Grundig/Sharp, Samsung.

Jul
2004 –
Mar
2005

**Field Application Engineer at [Spectrum-Germany](#),
semiconductor representative company**



1. Customer and distribution technical support for 5 semiconductor manufacturer lines.

Customers in Germany, Austria, Poland and Russia.

2. Development of an online Customer Management Database
- web portal based
3. Customer consultancy program on 8 bit microcontrollers

Feb
2001 –
Jun
2004

Field Application Engineer, [ZiLOG](#)



1. Presentations of new products to customers in the following areas:
 - o embedded Web servers;
 - o general purpose embedded microcontrollers.

Customers in Germany, Austria, Switzerland, Israel, Poland and Russia.

2. Development of floating point library for Z8 family of microcontrollers.
3. Development of FLASH boot loader for Z183 mixed signal processor.
4. Development of PCMCIA configuration utility.
5. Java technology - [Remote Access](#) Server for the eZ80 Embedded Webserver
 - o presentations at the World Wide Sales Conference in Las Vegas
 - o presentations in US, Russia, France, UK and Israel
6. Technical support for 8 bit CPUs and MCUs, new eZ80 and eZ8 families
link to the [Encore! tutorial](#)
7. Direct technical support of the customer projects
8. Writing application notes, technical articles
 - o [serial to TCP gateway](#)
 - o embedded flash file system
9. Embedded Real Time OS driver development - UART, Timer, I2C, flash memories

Jan 2000 – **Application programmer, ARSIS**
 • Implementation of SMTP inbound protocol.
 End Customer – Internet Tradeline Inc, USA.
<http://www.tradeline.com>

Jan 2001
 • Implementation of visual Form Designer for Java-based XML–XSLT document interchange.
 End Customer: Medtranet network department Berlin.
<http://www.net-dept.de>



Sep 1998 – **Reader, MIEE. Teaching students the following courses:**



Jan 2001

1. Development of specialized computing units, Z86 family-based.
2. Math modeling.
3. Arithmetic and logic basics of computers.
4. Information technologies in modern business.

Oct 1997 – **Software engineer, MIEE technology center.**
 Apr 1998
 Algorithm and device development for pressure sensor interpolated thermocompensation. Using the technique developed accuracy of an integrated pressure sensor was increased from 10% to 1%.



Sep 1994 – **Software engineer, Owen.**



Oct 1997

1. Alarm device development for 4-channel event sensing using Z86E04.
2. Versatile timer (Z86E04). Interrupt programming and keyboard input processing.
3. Temperature controller projects – TRM-2, TRM-4 multichannel temperature measurement and control. Development of 100W, 50W thermo resistor and J, K-type thermocouple curve linearization and curvature compensation. External voltage-frequency converter signal processing using Z86 and i8051. I2C support for 24LC0x EEPROM interface.
4. Temperature monitor unit based on i8051. Programmed Centronix interface to output data monitored to printer.
5. 8-channel temperature sensing device development using PIC14000 DSP. Internal ADC programming. Signal filtering to improve noise immunity.

LANGUAGE SKILLS

1. Russian (native)
 - reading, excellent
 - writing, excellent
 - spoken, excellent
2. English
 - reading, excellent
 - writing, excellent
 - spoken, excellent
3. German
 - reading, excellent
 - writing, average
 - spoken, good
4. Italian
 - reading, average
 - spoken, certainly needs training

PROFESSIONAL SKILLS

- team technical lead
- open systems architecture
- 32 bit System on Chip core - configuration, verification and programming
- Java development for product automation / Internet of Things
- C/C++/Assembler programming for PC and embedded
- Microprocessor/Microcontroller architecture and peripherals
- Ethernet/ArcNet industrial networking and TCP/IP protocol stack-programming knowledge
- PHP, MySQL and HTML web design
- Microsoft Office communication and presentation tools